

CLAIMS

What is claimed is:

1. A method for treating sewage in a fluid, comprising the steps of:
introducing the sewage and the fluid into a holding tank;
releasing live fish into the holding tank to consume and process the sewage; and
collecting a layer of sediment in the holding tank, the layer including waste from the fish.
2. The method according to claim 1, further comprising the step of:
progressively introducing the fluid containing the sewage into the holding tank so that at least one of the fluid and the sewage progresses along an overflow path of the holding tank.
3. The method according to claim 2, further comprising the step of:
flowing at least one of the fluid and the sewage into a further tank, the further tank being linked to the holding tank.
4. The method according to claim 3, further comprising the step of:
releasing further live fish into the further tank.
5. The method according to claim 1, further comprising the step of:
removing the layer of sediment from the holding tank.
6. The method according to claim 1, wherein the sewage and the fluid are introduced in a plurality of tanks containing respective fish, and wherein the method further comprising the steps of:
after a predetermined period, removing the fluid and remaining sewage from the plurality of tanks; and
introducing the removed fluid and the removed sewage into a plurality of further tanks, the plurality of further tanks including further live fish.
7. A sewage treatment system, comprising:

a plurality of interlinked holding tanks sequentially receiving one of (i) sewage and (ii) sewage including additional fluid, the holding tanks including live fish to consume and process the sewage, a layer of sediment being collected in the holding tanks, the layer including waste from the fish.

8. A method for producing fishmeal from sewage, comprising the steps of:
providing fluid into the sewage;
introducing the sewage and the fluid into a holding tank;
releasing live fish into the holding tank to consume and process the sewage; and
collecting a layer of fishmeal in the holding tank, the layer including at least one of (i) a waste from the fish and (ii) the fish.
9. A method for treating water containing sewage, comprising the steps of:
introducing the water and the sewage into a holding tank;
releasing live fish into the holding tank to consume and process the sewage;
collecting a layer of sediment in the holding tank, the layer including waste from the fish;
and
removing the water from the holding tank.
10. A method for producing fishmeal, comprising the steps of:
introducing sewage and a fluid into a holding tank;
releasing live fish into the holding tank to consume and process the sewage;
collecting a layer of sediment in the holding tank, the layer including waste from the fish;
removing the fish from the holding tank; and
processing the removed fish to produce the fishmeal.
11. A method for producing fishmeal, comprising the steps of:
introducing sewage and a fluid into a holding tank;
releasing live fish into the holding tank to consume and process the sewage;
collecting a layer of sediment in the holding tank, the layer including (i) waste from the fish

and (ii) the fish;

removing the layer from the holding tank; and
processing the layer to produce the fishmeal.

12. The method according to claim 11, wherein the processing step includes the substep of adding grains to the fishmeal.

13. A method for treating sewage, comprising the steps of:
introducing the sewage into a holding tank;
releasing live fish into the holding tank to consume and process the sewage; and
removing the fish from the holding tank.

14. The method according to claim 13, wherein the removing step is performed at a predetermined period after the releasing step is performed.

15. The method according to claim 13, wherein the removing step is performed when at least one of: (i) a size of the fish is substantially equal to a predetermined size and (ii) a weight of the fish is substantially equal to a predetermined weight.

16. The method according to claim 13, wherein the releasing step is performed simultaneously and the removing step is performed progressively.

17. The method according to claim 14, wherein the fish include European carp and the predetermined period is approximately one of (i) two months and (ii) three months.

18. The method according to claim 13, wherein the holding tank includes a plurality of sub-divisions through which the sewage is directed and wherein the method further comprising the steps of:

releasing live fish into each sub-division; and
subsequently harvesting the live fish from respective sub-divisions.

19. A sewage treatment system, comprising:
a plurality of interlinked holding tanks receiving sewage, the holding tanks including live fish to consume and process the sewage.
20. A method for producing fishmeal from sewage, comprising the steps:
introducing the sewage into a holding tank;
releasing live fish into the holding tank to consume and process the sewage;
removing the fish from the holding tank; and
processing the fish to produce the fishmeal.
21. The method according to claim 20, wherein the removing step occurs at a predetermined period after the releasing step is performed.
22. The method according to claim 20, wherein the processing step includes the substeps of:
drying the fish to kill pathogens;
segmenting the fish into pieces;
combining the pieces with additives to form one of a paste and a powder; and
extruding one of the paste and the powder to form pellets of fishmeal.
23. The method according to claim 22, wherein a moisture content of the paste is in range of about 10% to 15%.
24. The method according to claim 22, wherein a moisture content of the paste is in range of about 11% to 13%.
25. A method for treating water containing sewage, comprising the steps of:
introducing the water and the sewage into a holding tank;
releasing live fish into the holding tank to consume and process the sewage; and
removing the water from the holding tank.